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Form 304	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
DEC 18 1924	
State: <u>New Jersey</u>	
11-5513	
DESCRIPTIVE REPORT.	
Hydrographic Sheet No. "A" 4387	
LOCALITY:	
<u>Little Egg Harbor, N.J.</u>	
<u>Beach Haven Inlet</u>	
1924	
CHIEF OF PARTY:	
<u>E. H. Johnston</u>	

POST OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

to

ACCOMPANY HYDROGRAPHIC SHEET

No: 1

BEACH HAVEN INLET SURVEY 1924.

LIMITS:

This sheet embraces the water area of Beach Haven Inlet proper, with full development of the three fathom curve to seaward, and development of the depth curves, on Long Beach Island for about a mile to the north of the point of land, on the outside coast, and development on the inside for about half a mile. On the south the development was carried for about half a mile beyond the point of land both on the inside and outside coast.

AUTHORITY:

Instructions dated October 5, 1924, to E.H. Bernstein.

SURVEY METHODS:

The usual methods of the Service were used to effect the survey.

Lines were run nearly normal to the coast for good development and also feasibility, it being found that the sounding launch was more easily controlled running more nearly with the current than crosswise to it. Additional development is given to the point of Long Beach Island by radiating lines run on ranges normal to the shore which system also crosses the main channel close to this point at right angles. A few additional lines would have been desirable at two or three places on the sheet, but the necessity of releasing the sounding launch for service at the Coast Guard Station made this impracticable.

GENERAL DESCRIPTION:

From a distance the water of the whole inlet seems to be breaking, however a vessel drawing 7 ft. could make the channel curving around the north point of land; a vessel drawing 4 ft. could effect an entrance by using the channel through the middle of the inlet and crossing over to the main channel over the strip of 5 ft. depth which separates the two. No ranges can be given, but the areas inside the 6 ft. curve are continually breaking in even calm weather, and by avoiding these areas an entrance is easily effected. In an emergency the central channel may be useful to a small boat especially in a north-east blow.

DANGERS:

The sea breaks over the areas inside the γ 6 ft. curve at practically all times, but of course more so at low tide. The main channel $1/2$ mile to the south of the north point of land has moderate tide rips at all times except at slack water, which lasts but a short time.

The current through the above mentioned channel is at least three knots at full ebb or flow. Great difficulty in running sounding lines was experienced in the deep areas of the channels on account of the current.

A remarkable thing found in this inlet is that at full currents the ~~sand~~ "boils" at places as much as 6 ft. in depth, to the extent of endangering stopping up the circulating pump of the motor boat used for sounding.

ANCHORAGES:

The Bond's Coast Guard Station uses the deeper area about 250 meters off station "Lag" for anchoring its small boats, approaching this anchorage from the north.

LOW WATER LINES:

The low water lines shown on the topographic sheet for this region should be used in conjunction with those shown on the hydrographic sheet.

GENERAL:

A list of "Landmarks", and of "Plane-table Positions" accompanies the topographic sheet for this survey.

Tides:

A plain tide staff was established in the cove near station "Tie". Two 24 hour consecutive readings were taken on this station for comparison with the automatic gauge at Atlantic City. It was found that at the very lowest tides the readings on the first staff were not reliable; therefore a second staff was established near the first one, in deeper water, however this was only for the purpose of getting a value for the low water, - all tides for times when soundings were being taken are reliable, for the reduction of soundings.

Respectfully submitted,

E. H. Bernstein
E. H. Bernstein,
Lieutenant, U.S.C. & G. Survey.

TABLE 1 OF STATISTICS SHEET "A"

Date 1924	Letter	Volume	Positions	Soundings	Miles statute	Vessel
October 15	a	1	91	487	5.0	C. Guard launch
" 16	b	1	123	656	5.8	" "
" 17	c	1	92	503	9.3	" "
" 17	c	2	64	290	3.5	" "
" 20	d	2	84	491	7.7	" "
" 21	e	2	36	197	9.1	" "
" 22	f	2	128	664	11.8	" "
" 23	g	3	159	872	13.2	" "
" 24	h	3	135	694	10.8	" "
" 25	i	3	75	375	5.1	" "
" 26	i	4	56	256	5.4	" "
Total			933	5485	86.7	

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Report on Hyd. Sheet 4387.

The character and completeness of the records, might have been considered satisfactory but for the omission of bottom characteristics.

The protracting, plotting of soundings were done satisfactorily.

The sheet was clean, legible and in general, satisfactory as to draftsmanship.

Respectfully submitted,

E. Pisegari

June 23, 1925.

208.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON July 2, 1925.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4387

Beach Haven Inlet, New Jersey

Surveyed in October, 1924

Instructions dated October 3, 1924

Chief of Party, E. H. Bernstein.

Surveyed by E. H. B.

Protracted and plotted by P. R. Hathorne.

Verified and inked by G. Risegari.

1. The records conform to the requirements of the General Instructions except that bottom characteristics and boats' courses were entirely omitted.
2. The plan and character of development satisfy the General Instructions.
3. The plan and extent of development are not in accord with the specific instructions which call for a system of lines similar to that of the last survey. The main system of lines on the present survey is practically at right angles to the previous survey. However, the system used should give equally as good a development.
 - (b) Additional lines should have been run in the vicinity of the north spit to better develop the slope of the beach as called for in the specific instructions.
 - (c) Some of the lines should have been extended further offshore in order completely to develop the 3 fathom curve.
 - (d) In the main channel additional soundings should have been taken to better develop the area within the 18 ft. curve. Also in the deep area south of this channel there should have been a greater development.
4. Differences of 1 and 2 ft. in the soundings at crossings are quite common and there are several instances of greater differences.

There are a few places on the sheet where the soundings appear to be in error 1 fathom, due perhaps to the misreading of the leadline. It was impossible to rectify any of these discrepancies in the office and the survey must stand on its own merits.

5. The usual depth curves could generally be drawn except the 18 ft. curve offshore.
6. The field plotting was completed to the extent prescribed in the General Instructions.
7. No part of the field drafting had to be done over by the office cartographer.
8. The area is too changeable to make any comparison with previous surveys. There are no adjacent contemporary surveys.
9. No further development is required as the area is constantly changing and any additional work would be of no value to fill in gaps.
10. It is interesting to note that the north point of Tucker Beach has in one year (difference in time between the two surveys) moved approximately 1/2 mile to the southwestward. The area southwest of the north spit appears to be shoaling and the main channel has moved approximately 150 meters to the southwestward.
11. Rating of work(
 - (Character and scope of surveying - good.
 - (Field drafting - excellent.
12. Reviewed by A. L. Shalowitz, June, 1925.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. (A) 4387

State New Jersey

General locality . Little Egg Harbor

Locality Beach Haven Inlet

Chief of party . . . E.H. Bernstein

Surveyed by . . . E.H. Bernstein

Date of survey . . . October, 1924

Scale 1 : 5,000

Soundings in . . . Feet

Plane of reference

Protracted by *P.R. Hathorne* Soundings in pencil by *P.R.H.*

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, ☒ Tide books, ☒ Marigrams, _____ Boat sheets, ☒☒ Sounding books, _____ Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks:

The points on this sheet are correctly plotted on the right projection. (See title sheet for topographic sheet for this survey.)